

003027.00
Task 6

September 28, 2006

Mr. Bob Pace
Pace In/Out
P.O. Box 483
Keno, OR 97627

Dear Mr. Pace:

**SUBJECT: WORK PLAN FOR INSTALLING ADDITIONAL MONITORING
WELLS, ADDENDUM NO. 1, PACE IN/OUT, DORRIS,
CALIFORNIA**

INTRODUCTION

This letter serves as the *Work Plan for Installing Additional Monitoring Wells, Addendum No. 1, Pace In/Out, Case No. 1TSI171, 336 Main Street, Dorris, California*, dated September 28, 2006. This work plan addendum amends *Work Plan for Installing an Additional Monitoring Well, Pace In/Out, Case No. 1TSI171, 336 Main Street, Dorris, California*, dated August 28, 2006, as requested by the California Regional Water Quality Control Board, North Coast Region (NCRWQCB), in a telecommunication with Lawrence & Associates (L&A) conducted September 25, 2006. The project site is located as shown in **Figure 1**.

In their telecommunication, the NCRWQCB concurred with L&A's plan to install one additional monitoring well, but requested that an additional two wells be installed, and that sampling and testing methodologies of soil collected from the well borings be specified, to be outlined in a written response to be submitted as soon as possible.

The following work plan addresses the NCRWQCB request.

DESCRIPTION OF PROPOSED WORK

The location of additional groundwater-monitoring wells is restricted because of the proximity of the Union Pacific Railroad right-of-way, as shown in **Figure 2**.

Three 2-inch diameter groundwater monitoring wells, designated as MW-8 through MW-10, will be installed in the location in **Figure 2**, and will be constructed as shown in **Figure 3**.

The monitoring wells will be drilled with a CME-55 drill rig using hollow-stem augers, and will be installed during the same mobilization as the pilot study bioventing/SVE wells and ozone-spargers described in *Work Plan for Conducting a Pilot Study for Soil Vapor Extraction and Ozone Injection, Pace In/Out, Case No. 1TSI171, 336 Main*

Street, Dorris, California, dated February 23, 2006. The well borings will be logged using the Unified Soil Classification System, based on split-barrel samples collected at five-foot intervals and cuttings return between the intervals. The wells will be monitored on a quarterly basis along with the existing wells.

The soil samples will be collected using EPA Method 5035 and sealed in EnCore™ discrete sampling containers. The samples will be analyzed for total petroleum hydrocarbons as gasoline (TPH-gasoline); TPH-diesel; and a full EPA Method 8260 scan, including benzene, toluene, ethylbenzene, and total xylenes (BTEX); the five oxygenates tert-butyl alcohol (TBA), methyl tert-butyl ether (MTBE), diisopropyl alcohol (DIPE), ethyl-tert-butyl ether (ETBE), and tert amylmethyl ether (TAME); and chlorinated hydrocarbons.

Please contact me at (530) 244-9703 if you have any questions about this monitoring-well work plan addendum.

Sincerely,

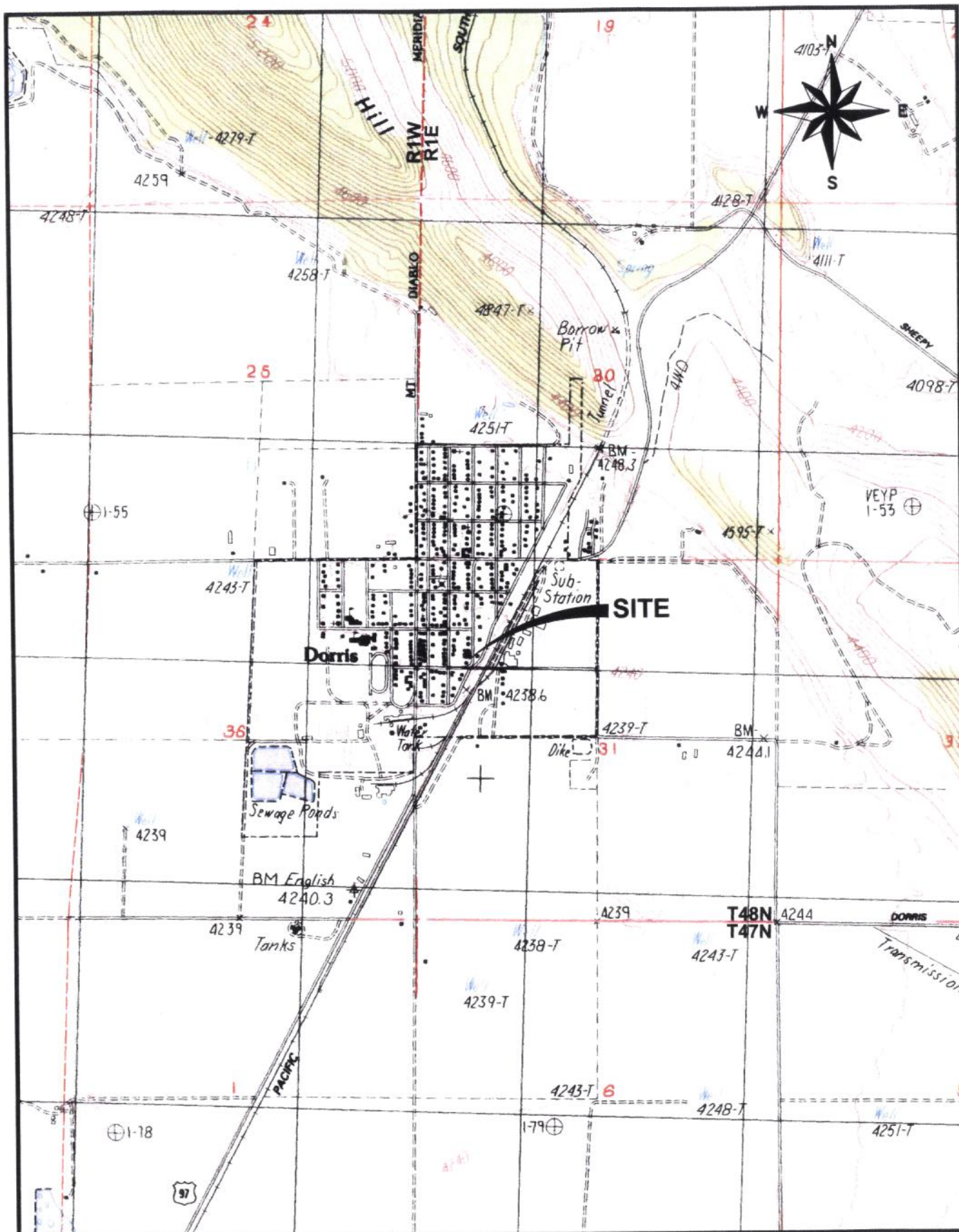


Bryan W. Gartner
Senior Geologist



- enc. **Figure 1.** Site-Location Map
 Figure 2. Proposed Wells, Probes, and Points for Pilot Study
 Figure 3. Typical Construction Detail For Groundwater-Monitoring Well

- cc: Mr. Cody Walker, California Regional Water Quality Control Board, North Coast Region
 Mr. John Ellis, Siskiyou County Public Health Department



SITE-LOCATION MAP

MAP ADAPTED FROM USGS 7.5-MINUTE
TOPOGRAPHIC QUAD, DORRIS, CALIF., 1985

LAWRENCE & ASSOCIATES
2001 MARKET STREET, RM. 523
REDDING, CA 96001

PHONE (530) 244-9703
FAX (530) 244-5021

SCALE: 1"=2,000'

DATE: 9/26/2006

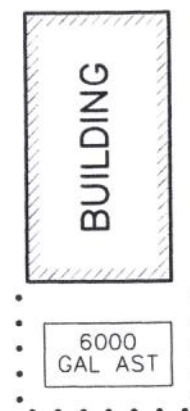
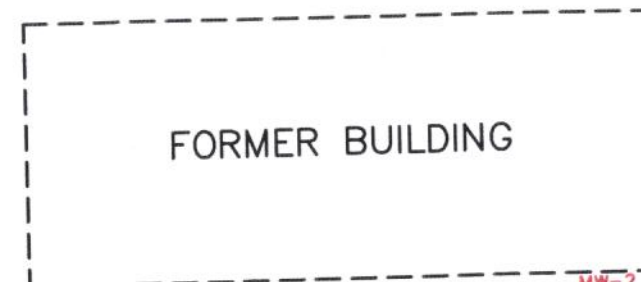
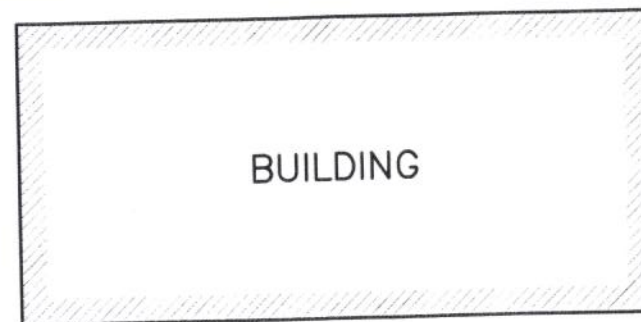
JOB NO: 003027.00

CLIENT:
ROBERT & JANET PACE

PROJECT:
PILOT STUDY

DRAWN BY:
J. HOLDEN

FIGURE 1



MW-5
<50

MW-4
<50

BUILDING

MW-1
87,000

MW-2
11,000

MW-3
98,000

MW-9

MW-7
44,000

MW-8

MW-10

FIRE
DEPARTMENT

HIGHWAY 97

HIGHWAY 97

150' UNION PACIFIC
RIGHT-OF-WAY

RAILROAD TRACKS

LEGEND

- MW-1 89,000 MONITORING-WELL LOCATION
TPH-GASOLINE CONCENTRATION IN GROUNDWATER, ug/L (6/1/05)
- 10000 TPH-GASOLINE CONCENTRATION CONTOUR, ug/L (6/1/05)
(DASHED WHERE INFERRED)
- TB-2 TEST BORING LOCATION, 2/18-19/02
- FORMER UST LOCATIONS
- MW-8 PROPOSED GROUNDWATER MONITORING WELL
- PROPOSED BIOVENTING/SOIL-VAPOR EXTRACTION (SVE) WELLS
- PROPOSED OZONE INJECTION POINTS
- PROPOSED SOIL-VAPOR MONITORING PROBES
- OZONE GENERATOR AND SUBSURFACE DISTRIBUTION TUBING

PROPOSED WELLS, PROBES, AND POINTS FOR PILOT STUDY

LAWRENCE & ASSOCIATES
2001 MARKET STREET, RM. 523
REDDING, CA 96001
PHONE (530) 244-9703
FAX (530) 244-5021

SCALE: 1"=30'
DATE: 9/26/2006
JOB NO.: 003027.00

CLIENT: ROBERT AND JANET PACE

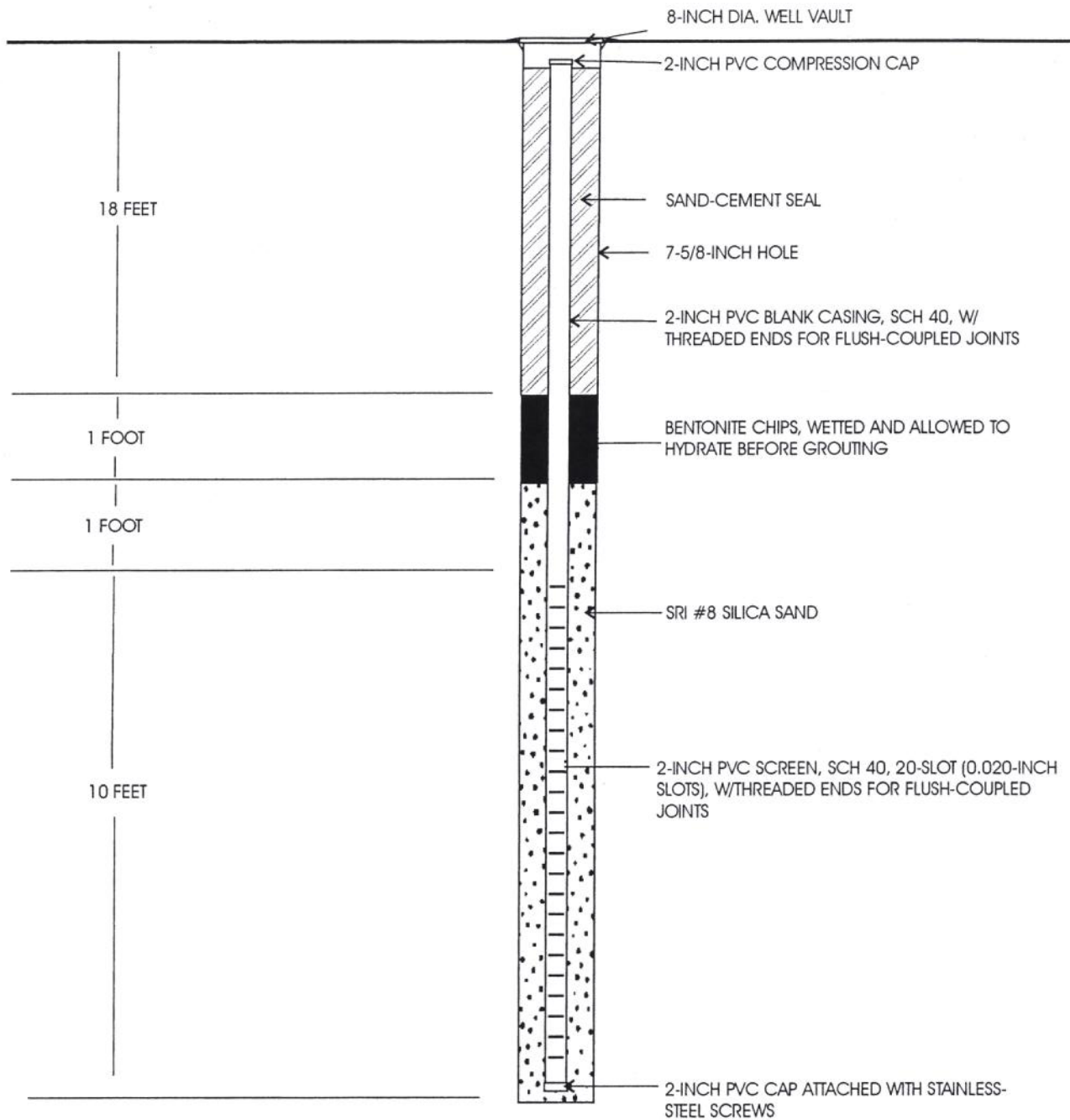
PROJECT: DORRIS SHELL - PILOT STUDY

DRAWN BY: J. HOLDEN

CHECKED BY: B. GARTNER

FIGURE 2

P:\003027.00-Dorris Shell\PROPOSED-SEP06.dwg J.L.H. 9/26/2006



**TYPICAL CONSTRUCTION DETAIL FOR
GROUNDWATER MONITORING WELL**

LAWRENCE & ASSOCIATES
2001 Market Street, Room 523
Redding, CA 96001

Phone (530) 244-9703
Fax (530) 244-5021

SCALE: AS SHOWN

DATE: AUGUST 24, 2006

JOB NO.: 003027.00

CLIENT: PACE IN/OUT

PROJECT: PILOT STUDY

DRAWN BY: B. GARTNER

FIGURE 3